Ron Gigliotti
Aero Metals, Inc.
402 Darlington Street
LaPorte, Indiana 46350

Re: SMF 091-8786
First Significant Modification to
FESOP F091-5507-00074

Dear Mr. Gigliotti:

Aero Metals, Inc. was issued a Federally Enforceable State Operating Permit (FESOP) on April 7, 1997 for an investment casting foundry. A letter requesting a significant modification was received on July 15, 1997. Pursuant to the provisions of 326 IAC 2-8-11(d) the permit is hereby approved as described in the attached Technical Support Document.

The modification consists of adding two (2) natural gas-fired wax burn out ovens and revising the monitoring and record keeping requirements. The source is also fulfilling the requirements of 326 IAC 2-1-3.2 (State construction and operating permits: enhanced new source review).

An Exemption (CP 091-8802-00074) was issued on September 3, 1997 for the two (2) natural gas-fired wax burn out ovens. This Significant Modification incorporates the new equipment into the existing Federally Enforceable State Operating Permit (FESOP).

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act -IC 4-21.5-3-5. If you have any questions on this matter, please contact Catherine Moore, of my staff, at 317-233-2637 or 1-800-451-6027 (ext 3-2637).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
cam
cc: File - LaPorte County
U.S. EPA, Region V
LaPorte County Health Department
Air Compliance Section - Rick Reynolds
Compliance Data Section - Jerri Curless
Administration and Development Section - Janet Mobley
Technical Support and Modeling - Nancy Landau

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR MANAGEMENT

Aero Metals, Inc.
402 Darlington Street
LaPorte, Indiana 46350

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F091-5507-00074	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: April 7, 1997

First Significant Modification: SMF091-8786	Pages Affected: 4 - 6, 24 - 26, 28 - 40, Deleted Page 41
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

A.1 General Information

The Permittee owns and operates an investment casting foundry.

Responsible Official:	Ron Gigliotti
Source Address:	402 Darlington Street, LaPorte, Indiana, 46350
Mailing Address:	402 Darlington Street, LaPorte, Indiana, 46350
SIC Code:	3324
County Location:	LaPorte
County Status:	Partial nonattainment for primary SO_2, attainment for all remaining criteria pollutants
Source Status:	Synthetic Minor Source, FESOP Program

A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

(a) six (6) electric induction melting furnaces with total rating physically constrained to 4,380 pounds metal per hour:

(1) two (2) electric induction melting furnaces individually rated at 730 pounds metal per hour and identified as EU7 and EU8, and two (2) electric induction melting furnaces individually rated at 1,460 pounds metal per hour and identified as EU9 and EU10, all controlled for particulate matter by one (1) cyclone, exhausting at one (1) stack identified as S/V7; and

(2) two (2) electric induction melting furnaces individually rated at 1,460 pounds metal per hour and identified as EU58 and EU59, with particulate matter controlled by one (1) cyclone, exhausting at one (1) stack identified as S/V21;

(b) eight (8) natural gas fired wax burn-out ovens each rated at 0.55 million (MM) British thermal units (Btu) per hour and identified as EU2, EU3, EU4, EU5, EU60, EU61, EU84, and EU85 each exhausting through individual stacks respectively identified as S/V2, S/V3, S/V4, S/V5, S/V22, S/V23, S/V46, and S/V47;

(c) one (1) sodium hydroxide solution (caustic) metal parts cleaning unit rated at 1,263 pounds steel castings per hour and identified as EU1, with a wet scrubber for caustic fume control identified as AERO-421, exhausting at one (1) stack identified as S/V1;

(d) five (5) surface grinders identified as EU12 through EU16, nine (9) milling machines identified as EU17 through EU25, and two (2) Bridgeport CNC milling machines identified as EU26 and EU27, all controlled for particulate matter by a Torit collection system, identified as D-1, exhausting at one (1) stack identified as S/V9;

(e) one (1) 2-inch degater identified as EU28, one (1) degater machine identified as EU29, one (1) 2-head degater identified as EU30, and one (1) 4-inch degater machine identified as EU31, all controlled for particulate matter by an internal Micro air collection system, identified as D-2, exhausting at one (1) stack identified as S/V10;

(f) three (3) shot blasters identified as EU32, EU34 and EU41, four (4) friction saws identified as EU33, EU35, EU36 and EU37, and three (3) ceramic mold knock out

machines identified as EU38, EU39, and EU40, all controlled for particulate matter by one (1) dust collector identified as D-3, exhausting at one (1) stack identified as S/V48;

(g) four (4) sandblasters identified as EU42 through EU45, and one (1) 2-head degater, identified as EU46, all controlled for particulate matter by one (1) dust collector identified as D-3, exhausting at one (1) stack identified as S/V48;

(h) two (2) silica sand rain fall units identified as EU49 and EU50, each controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-1, exhausting at two (2) stacks identified as S/V15 and S/V16;

(i) three (3) fluidized sand beds identified as EU51, EU53, and EU54, and one (1) sand mix tank identified as EU52, with EU51 controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-2, exhausting through one (1) stack identified as S/V16, and EU52, EU53, and EU54 controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-3, exhausting through one (1) stack identified as S/V17; and

(j) one (1) OKK CNC milling machine identified as EU56, controlled for particulate matter by one (1) baghouse, exhausting at one (1) stack identified as S/V-049.

A.3 Insignificant Activities

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour. This includes one (1) unit rated at 0.58 MMBtu per hour, one (1) unit rated at 0.1 MMBtu per hour, one (1) unit rated at 0.08 MMBtu per hour, one (1) unit rated at 0.05 MMBtu per hour, three (3) units each rated at 0.125 MMBtu per hour, seven (7) radiant tube heater units rated at 0.08 MMBtu per hour for small units and 0.09 MMBtu per hour for larger units, eleven (11) radiant gas space heaters rated at 0.03 MMBtu per hour for small units and 0.09 MMBtu per hour for larger units, and one (1) boiler system rated at 2.68 MMBtu per hour;

(b) the following VOC and HAP storage containers: vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(c) machining where an aqueous cutting coolant continuously floods the machining interface;

(d) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6;

(e) the following equipment related to manufacturing activities not resulting in the emission of hazardous air pollutants: brazing equipment, cutting torches, soldering equipment, and welding equipment;

(f) any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs;

(g) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(h) paved and unpaved roads and parking lots with public access;

(i) nineteen (19) miscellaneous belt sanders, grinders, saws, and degaters with particulate matter emissions below 5 pounds per hour. This includes Burr King belt sander (Aero-0703), Roboform EDM (Aero-0700), SBL EDM (Aero-0701), grinder (Aero-0702), Blador grinder (Aero-0273), band saw (Aero-0250), Cincinnati grinder (Aero-0445), Burr King belt sander (Aero-0463), 9-inch degater (Aero-0422), 9-inch degater (Aero-0422B), 8-inch degater (Aero-0423), Burr King belt sander (Aero-0539), six station degater (Aero-0424), automatic degater (Aero-0444), 6-inch belt sander (Aero-0704), Delta band saw (Aero-0372), and three Burr King belt sanders (Aero-0449, Aero-0376, and Aero-0516);

(j) one (1) solvent based wax pattern cleaning operation utilizing Nalco Wax Cleaner or equivalent;

(k) twelve (12) work benches using trichloroethylene for wax repair;

(l) twelve (12) heat torches to melt wax;

(m) eight (8) 48-inch ceiling fans;

(n) one (1) 12-inch gas food grill vent;

(o) eighteen (18) non-volatiles/non-particulate matter emitting injection molders; and

(p) one (1) steam autoclave wax melter.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

SECTION D.1 FACILITY OPERATION CONDITIONS

six (6) electric induction melting furnaces with total rating physically constrained to 4,380 pounds metal per hour:

(1) two (2) electric induction melting furnaces individually rated at 730 pounds metal per hour and identified as EU7 and EU8, and two (2) electric induction melting furnaces individually rated at 1,460 pounds metal per hour and identified as EU9 and EU10, all controlled for particulate matter by one (1) cyclone, exhausting at one (1) stack identified as S/V7; and

(2) two (2) electric induction melting furnaces individually rated at 1,460 pounds metal per hour and identified as EU58 and EU59, with particulate matter controlled by one (1) cyclone, exhausting at one (1) stack identified as S/V21.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facilities described above, shall not exceed 6.93 pounds per hour. Satisfaction of this limit will ensure compliance with the limit for PM-10 pursuant to 326 IAC 2-8-4.

D.1.2 Particulate Matter 10 Microns (PM-10)
Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through D.8 shall not exceed 22.0 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.1.3 Beryllium
That pursuant to 40 CFR 61, Subpart C (National Emission Standard for Beryllium), beryllium emissions to the atmosphere from the facilities described above, shall not exceed 10 grams of beryllium over a 24 hour period.

Testing Requirements [326 IAC 2-8-4(3)]

D.1.4 Particulate Matter
During the period 48 to 54 months after issuance of this permit, the Permittee shall perform PM and PM-10 testing on any of furnaces EU7-EU10 at the cyclone exhaust stack (S/V7) or from any of furnaces EU58-EU59 at the cyclone exhaust stack (S/V21) utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10.

D.1.5 Beryllium
During the period 48 to 54 months after issuance of this permit, the Permittee shall perform beryllium testing on any of furnaces EU7-EU10 at the cyclone exhaust stack (S/V7) or from any of furnaces EU58-EU59 at the cyclone exhaust stack (S/V21) utilizing methods per 40 CFR Part 61 Appendix B, Method 104. Method 103 of Appendix B to this part is approved by the Administrator as an alternative method. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.1.6 Daily Visible Emission Notations

Daily visible emission notations of the cyclone stacks' exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.7 Preventive Maintenance [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this source.

D.1.8 Preventive Inspections

The following inspections shall be performed when the induction melting furnaces are operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Items/Conditions to be inspected:

(a) Integrity of the unit and duct work
(b) Duct work interior (free flow)
(c) Fan and motor operation

Inspections of unit and related items shall be performed monthly.

D.1.9 Operational Parameters

The Permittee shall maintain daily records at the stationary source of the following values:

(a) Visible emission observations;

(b) Checklist with dates and initials for each preventive action performed; and

(c) Records of corrective actions.

D.1.10 Reporting

Any deviations shall be reported in accordance with Condition B.15 and summarized in the annual certification submitted, to the addresses listed in Section C - General Reporting Requirements, in accordance with Condition B.12.

SECTION D.2 FACILITY OPERATION CONDITIONS

eight (8) natural gas fired wax burn-out ovens each rated at 0.55 million (MM) Btu per hour and identified as EU2, EU3, EU4, EU5, EU60, EU61, EU84 and EU85, each exhausting through individual stacks respectively identified as S/V2, S/V3, S/V4, S/V5, S/V22, S/V23, S/V46 and S/V47.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate Matter
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facilities described above, shall not exceed 8.40 pounds per hour. Satisfaction of this limit will ensure compliance with the limit for PM-10 pursuant to 326 IAC 2-8-4.

D.2.2 Particulate Matter 10 Microns (PM-10)
Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through D.8 shall not exceed 22.0 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.2.3 Natural Gas Fuel
The eight (8) burn out ovens, rated at 0.55 million Btu per hour each, shall use only natural gas fuel.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.2.4 Daily Visible Emission Notations
Daily visible emission notations of the burn out oven stacks' exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.2.5 Operational Parameters
The Permittee shall maintain daily records at the stationary source of the following values:

(a) Visible emission observations;

(b) Checklist with dates and initials for each preventive action performed; and

(c) Records of corrective actions.

SECTION D.3 FACILITY OPERATION CONDITIONS

one (1) sodium hydroxide solution (caustic) metal parts cleaning unit rated at 1263 pounds steel castings per hour and identified as EU1, with a wet scrubber for caustic fume control identified as AERO-421, exhausting at one (1) stack identified as S/V1.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Particulate Matter
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facility described above, shall not exceed 0.30 pounds per hour. Satisfaction of this limit will ensure compliance with the limit for PM-10 pursuant to 326 IAC 2-8-4.

D.3.2 Particulate Matter 10 Microns (PM-10)
Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through D.8 shall not exceed 22.0 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

Testing Requirements [326 IAC 2-8-4(3)]

D.3.3 Particulate Matter
During the period 48 to 54 months after issuance of this Federally Enforceable State Operating Permit, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.3.4 Pressure and Liquid Flow Rate Readings
The Permittee shall take pressure readings and scrubbing liquid flow rate readings from the wet scrubber controlling the facility, at least once a day when the facility is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the wet scrubber shall be maintained within the range of 2.0 and 3.0 inches of water, and the scrubbing liquid flow rate shall be maintained within the range of 1.5 and 2.0 gallons of sodium hydroxide per minute or a range and flow rate established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading or flow rate is outside of the above mentioned range for any one reading.

The instruments used for determining the pressure and liquid flow rate shall comply with condition C.10 - Pressure Gauge and Wet Scrubber Liquid Flow Rate Meter Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.3.5 Preventive Maintenance [326 IAC 2-8-4(9)]
A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this source.

D.3.6 Operational Parameters
To document compliance with Condition D.3.4, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

D.3.7 Reporting
Any deviations shall be reported in accordance with Condition B.15 and summarized in the annual certification submitted, to the addresses listed in Section C - General Reporting Requirements, in accordance with Condition B.12.

SECTION D.4 FACILITY OPERATION CONDITIONS

five (5) surface grinders identified as EU12 through EU16, nine (9) milling machines identified as EU17 through EU25, and two (2) Bridgeport CNC milling machines identified as EU26 and EU27, all controlled for particulate matter by a Torit collection system, identified as D-1, exhausting at one (1) stack identified as S/V9.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.4.1 Particulate Matter
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facility described above, shall not exceed 0.02 pounds per hour. Satisfaction of this limit will ensure compliance with the limit for PM-10 pursuant to 326 IAC 2-8-4.

D.4.2 Particulate Matter 10 Microns (PM-10)
Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through D.8 shall not exceed 22.0 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

Compliance Determination Requirements

D.4.2a Testing Requirements

Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up of the new Particulate Matter (PM) control devices (D-1, D-2, and D-3), the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.4.3 Visible Emissions Notations

Daily visible emission notations of the Torit collection system stack exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.4.5 Preventive Maintenance [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this source.

D.4.6 Preventive Inspections

The following inspections shall be performed when the foundry process operations are operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Items/Conditions to be inspected:

(a) Integrity of the unit and duct work
(b) Duct work interior (free flow)
(c) Fan and motor operation

An inspection shall be performed each month of the Torit collection system controlling the five (5) surface grinders, nine (9) milling machines, and two (2) Bridgeport CNC milling machines when venting to the atmosphere. Inspections are optional when venting indoors.

In the event that control device failure has been observed, the affected control device will be shut down immediately until the failed units have been repaired or replaced.

D.4.7 Operational Parameters

To document compliance with Condition D.4.3, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

D.4.8 Reporting

Any deviations shall be reported in accordance with Condition B.15 and summarized in the annual certification submitted, to the addresses listed in Section C - General Reporting Requirements, in accordance with Condition B.12.

SECTION D.5 FACILITY OPERATION CONDITIONS

one (1) 2-inch degater identified as EU28, one (1) degater machine identified as EU29, one (1) 2-head degater identified as EU30, and one (1) 4-inch degater machine identified as EU31, all controlled for particulate matter by an internal Micro air collection system, identified as D-2, exhausting at one (1) stack identified as S/V10.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.5.1 Particulate Matter

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facility described above, shall not exceed 0.47 pounds per hour. Satisfaction of this limit will ensure compliance with the limit for PM-10 pursuant to 326 IAC 2-8-4.

D.5.2 Particulate Matter 10 Microns (PM-10)

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through D.8 shall not exceed 22.0 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

Compliance Determination Requirements

D.5.2a Testing Requirements

Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up of the new Particulate Matter (PM) control devices (D-1, D-2, and D-3), the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.5.3 Pressure Readings

The Permittee shall take readings of the total static pressure drop across the baghouse at least once a day when the facility is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 0.5 and 8.5 inches of water. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range.

The instruments used for determining the pressure and liquid flow rate shall comply with condition C.10 - Pressure Gauge and Wet Scrubber Liquid Flow Rate Meter Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.5.4 Broken Bag or Failure Detection

In the event that bag failure has been observed:

(a) The affected compartments will be shut down immediately until the units have been replaced.
(b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.5.5 Preventive Maintenance [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this source.

D.5.6 Preventive Inspections

The following inspections shall be performed when the foundry process operations are operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Items/Conditions to be inspected:

(a) Integrity of the unit and duct work
(b) Duct work interior (free flow)
(c) Fan and motor operation

An inspection shall be performed each month of the internal Micro air collection system controlling the one (1) 2-inch degater, one (1) degater machine, one (1) 2-head degater and one (1) 4-inch degater machine when venting to the atmosphere. Inspections are optional when venting indoors.

In the event that control device failure has been observed, the affected control device will be shut down immediately until the failed units have been repaired or replaced.

D.5.7 Operational Parameters

To document compliance with Condition D.5.3, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

D.5.8 Reporting

Any deviations shall be reported in accordance with Condition B.15 and summarized in the annual certification submitted, to the addresses listed in Section C - General Reporting Requirements, in accordance with Condition B.12.

SECTION D.6 FACILITY OPERATION CONDITIONS

three (3) shot blasters identified as EU32, EU34 and EU41, four (4) friction saws identified as EU33, EU35, EU36 and EU37, and three (3) ceramic mold knock out machines identified as EU38, EU39, and EU40, all controlled for particulate matter by one (1) dust collector identified as D-3, exhausting at one (1) stack identified as S/V48.

four (4) sandblasters identified as EU42 through EU45, and one (1) 2-head degater, identified as EU46, all controlled for particulate matter by one (1) dust collector identified as D-3, exhausting at one (1) stack identified as S/V48.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.6.1 Particulate Matter

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facility described above, shall not exceed 4.09 pounds per hour. Satisfaction of this limit will ensure compliance with the limit for PM-10 pursuant to 326 IAC 2-8-4.

D.6.2 Particulate Matter 10 Microns (PM-10)

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through D.8 shall not exceed 22.0 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

Compliance Determination Requirements

D.6.2a Testing Requirements

Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up of the new Particulate Matter (PM) control devices (D-1, D-2, and D-3), the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.6.3 Pressure Readings

The Permittee shall take readings of the total static pressure drop across the baghouse at least once a day when the facility is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 0.05 and 10.0 inches of water. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range.

The instruments used for determining the pressure and liquid flow rate shall comply with condition C.10 - Pressure Gauge and Wet Scrubber Liquid Flow Rate Meter Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.6.4 Visible Emissions Notations

Daily visible emission notations of the one (1) dust collector stack exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.6.5 Preventive Maintenance [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this source.

D.6.6 Preventive Inspections

The following inspections shall be performed when the foundry process operations are operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Items/Conditions to be inspected:

(a) Integrity of the unit and duct work
(b) Duct work interior (free flow)
(c) Fan and motor operation

An inspection shall be performed each month of the one (1) dust collector controlling the three (3) shot blasters and three (3) ceramic mold knock out machines when venting to the atmosphere. Inspections are optional when venting indoors.

In the event that control device failure has been observed, the affected control device will be shut down immediately until the failed units have been repaired or replaced.

D.6.7 Operational Parameters

To document compliance with Condition D.6.3, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

D.6.8 Reporting

Any deviations shall be reported in accordance with Condition B.15 and summarized in the annual certification submitted, to the addresses listed in Section C - General Reporting Requirements, in accordance with Condition B.12.

SECTION D.7 FACILITY OPERATION CONDITIONS

(1)	two (2) silica sand rain fall units identified as EU49 and EU50, each controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-1, exhausting at two (2) stacks identified as S/V15 and S/V16; and
(2)	three (3) fluidized sand beds identified as EU51, EU53, and EU54, and one (1) sand mix tank identified as EU52, with EU51 controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-2, exhausting through one (1) stack identified as S/V16, and EU52, EU53, and EU54 controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-3, exhausting through one (1) stack identified as S/V17.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.7.1 Particulate Matter

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facilities described above, shall not exceed 1.17 pounds per hour. Satisfaction of this limit will ensure compliance with the limit for PM-10 pursuant to 326 IAC 2-8-4.

D.7.2 Particulate Matter 10 Microns (PM-10)

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through D.8 shall not exceed 22.0 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.7.3 Visible Emissions Notations

Daily visible emission notations of the dust collectors stack exhausts, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time.

In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.7.4 Preventive Maintenance [326 IAC 2-8-4(9)]
A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this source.

D.7.5 Preventive Inspections
The following inspections shall be performed when the silica sand rainfall units are operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Items/Conditions to be inspected:
(a) Integrity of the unit and duct work
(b) Duct work interior (free flow)
(c) Fan and motor operation

Inspections of unit and related items shall be performed monthly.

D.7.6 Operational Parameters
To document compliance with Condition D.7.3, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

D.7.7 Reporting
Any deviations shall be reported in accordance with Condition B.15 and summarized in the annual certification submitted, to the addresses listed in Section C - General Reporting Requirements, in accordance with Condition B.12.

SECTION D.8 FACILITY OPERATION CONDITIONS

one (1) OKK CNC milling machine identified as EU56, controlled for particulate matter by one (1) baghouse, exhausting at one (1) stack identified as S/V-049.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.8.1 Particulate Matter

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facility described above, shall not exceed 0.0083 pounds per hour. Satisfaction of this limit will ensure compliance with the limit for PM-10 pursuant to 326 IAC 2-8-4.

D.8.2 Particulate Matter 10 Microns (PM-10)

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through D.8 shall not exceed 22.0 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

Compliance Determination Requirements

D.8.2a Testing Requirements

Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up of the new Particulate Matter (PM) control device (S/V-049), the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other approved methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.8.3 Visible Emissions Notations

Daily visible emission notations of the baghouse stack exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.8.4 Broken Bag or Failure Detection

In the event that bag failure has been observed:

(a) The affected compartments will be shut down immediately until the units have been replaced.

(b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.8.5 Preventive Maintenance [326 IAC 2-8-4(9)]
A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this source.

D.8.6 Preventive Inspections
The following inspections shall be performed when the OKK CNC milling machine is operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Items/Conditions to be inspected:
(a) Integrity of the unit and duct work
(b) Duct work interior (free flow)
(c) Fan and motor operation

Inspections of unit and related items shall be performed monthly.

D.8.7 Operational Parameters
To document compliance with Condition D.8.3, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

D.8.8 Reporting
Any deviations shall be reported in accordance with Condition B.15 and summarized in the annual certification submitted, to the addresses listed in Section C - General Reporting Requirements, in accordance with Condition B.12.

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document for the Significant Modification to the Federally Enforceable State Operating Permit (FESOP) and Enhanced New Source Review (ENSR)

Source Name:	Aero Metals, Inc.
Source Location:	402 Darlington Street, LaPorte, Indiana 46350
County:	LaPorte
SIC Code:	3324
Significant Modification No.:	SMF 091-8786-00074
Operation Permit No.:	F 091-5507-00074
Permit Reviewer:	Catherine Moore

The Federally Enforceable State Operating Permit (FESOP) was issued on April 7, 1997. An Exemption (CP 091-8802-00074) was issued on September 3, 1997 for the two (2) natural gas-fired wax burn out ovens. On July 15, 1997, Aero Metals, Inc. filed an Amendment requesting certain changes to the permit. The following changes were agreed to and made as the First Significant Modification for this source. This Significant Modification incorporates the new equipment into the existing Federally Enforceable State Operating Permit (FESOP) (~~strikeout~~ added to show what was deleted and **bold** added to show what was added):

1. Condition A.2 "Emission Units and Pollution Control Summary" has been changed to be as follows to add two (2) new natural gas-fired wax burn-out ovens:

A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

(a) six (6) electric induction melting furnaces with total rating physically constrained to 4,380 pounds metal per hour:

(1) two (2) electric induction melting furnaces individually rated at 730 pounds metal per hour and identified as EU7 and EU8, and two (2) electric induction melting furnaces individually rated at 1,460 pounds metal per hour and identified as EU9 and EU10, all controlled for particulate matter by one (1) cyclone, exhausting at one (1) stack identified as S/V7; and

(2) two (2) electric induction melting furnaces individually rated at 1,460 pounds metal per hour and identified as EU58 and EU59, with particulate matter controlled by one (1) cyclone, exhausting at one (1) stack identified as S/V21;

(b) ~~six (6)~~ **eight (8)** natural gas fired wax burn-out ovens each rated at 0.55 million (MM) British thermal units (Btu) per hour and identified as EU2, EU3, EU4, EU5, EU60**,** ~~and~~ EU61, **EU84, and EU85** each exhausting through individual stacks respectively identified as S/V2, S/V3, S/V4, S/V5, S/V22**,** ~~and~~ S/V23**, S/V46, and S/V47**;

(c) one (1) sodium hydroxide solution (caustic) metal parts cleaning unit rated at 1,263 pounds steel castings per hour and identified as EU1, with a wet scrubber for caustic fume control identified as AERO-421, exhausting at one (1) stack identified as S/V1;

(d) five (5) surface grinders identified as EU12 through EU16, nine (9) milling machines identified as EU17 through EU25, and two (2) Bridgeport CNC milling machines identified as EU26 and EU27, all controlled for particulate matter by ~~one (1) baghouse~~ **a Torit collection system,** identified as D-1, exhausting at one (1) stack identified as S/V9;

(e) one (1) 2-inch degater identified as EU28, one (1) degater machine identified as EU29, one (1) 2-head degater identified as EU30, and one (1) 4-inch degater machine identified as EU31, all controlled for particulate matter by ~~one (1) cyclone and one (1) baghouse~~ **an internal Micro air collection system,** identified as D-2, exhausting at one (1) stack identified as S/V10;

(f) three (3) shot blasters identified as EU32, EU34 and EU41, four (4) friction saws identified as EU33, EU35, EU36 and EU37, and three (3) ceramic mold knock out machines identified as EU38, EU39, and EU40, all controlled for particulate matter by one (1) ~~cyclone and one (1) baghouse~~ **dust collector** identified as D-3, exhausting at one (1) stack identified as ~~S/V11~~ **S/V48**;

(g) four (4) sandblasters identified as EU42 through EU45, and one (1) 2-head degater, identified as EU46, all controlled for particulate matter by one (1) ~~cyclone and one (1) baghouse~~ **dust collector** identified as ~~D-4~~ **D-3**, exhausting at one (1) stack identified as ~~S/V12~~ **S/V48**;

(h) two (2) silica sand rain fall units identified as EU49 and EU50, ~~both~~ **each** controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-1, exhausting at ~~one (1)~~ **two (2)** stack**s** identified as S/V15 **and S/V16**;

(i) three (3) fluidized sand beds identified as EU51, EU53, and EU54, and one (1) sand mix tank identified as EU52, with EU51 controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-2, exhausting through one (1) stack identified as S/V16, and EU52, EU53, and EU54 controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-3, exhausting through one (1) stack identified as S/V17; and

(j) one (1) OKK CNC milling machine identified as EU56, controlled for particulate matter by one (1) baghouse, exhausting at one (1) stack identified as S/V19.

2. Condition A.3 “Insignificant Activities” has been changed to be as follows add natural gas-fired combustion sources:

A.3 Insignificant Activities

This stationary source also includes the following insignificant activities, as defined in ~~326 IAC 2-7-1(20)~~ **326 IAC 2-7-1(21)**:

(a) natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour. This includes one (1) ~~furnace~~ **unit** rated at 0.58 MMBtu per hour, ~~four (4) furnaces each rated at 0.075 MMBtu per hour, twelve (12) heaters each rated at 0.10 MMBtu per hour, and one (1) boiler system rated at 3.35 MMBtu per hour~~ **one (1) unit rated at 0.1 MMBtu per hour, one (1) unit rated at 0.08 MMBtu per hour, one (1) unit rated at 0.05 MMBtu per hour, three (3) units each rated at 0.125 MMBtu per hour, seven (7) radiant tube heater units rated at 0.08 MMBtu per hour**

for small units and 0.09 MMBtu per hour for larger units, eleven (11) radiant gas space heaters rated at 0.03 MMBtu per hour for small units and 0.09 MMBtu per hour for larger units, and one (1) boiler system rated at 2.68 MMBtu per hour;

(b) the following VOC and HAP storage containers: vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(c) machining where an aqueous cutting coolant continuously floods the machining interface;

(d) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6;

(e) the following equipment related to manufacturing activities not resulting in the emission of hazardous air pollutants: brazing equipment, cutting torches, soldering equipment, and welding equipment;

(f) any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs;

(g) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(h) paved and unpaved roads and parking lots with public access;

(i) nineteen (19) miscellaneous belt sanders, grinders, saws, and degaters with particulate matter emissions below 5 pounds per hour. This includes Burr King belt sander (Aero-0703), Roboform EDM (Aero-0700), SBL EDM (Aero-0701), grinder (Aero-0702), Blador grinder (Aero-0273), band saw (Aero-0250), Cincinnati grinder (Aero-0445), Burr King belt sander (Aero-0463), 9-inch degater (Aero-0422), 9-inch degater (Aero-0422B), 8-inch degater (Aero-0423), Burr King belt sander (Aero-0539), six station degater (Aero-0424), automatic degater (Aero-0444), 6-inch belt sander (Aero-0704), Delta band saw (Aero-0372), and three Burr King belt sanders (Aero-0449, Aero-0376, and Aero-0516);

(j) one (1) solvent based wax pattern cleaning operation utilizing Nalco Wax Cleaner or equivalent;

(k) twelve (12) work benches using trichloroethylene for wax repair;

(l) twelve (12) heat torches to melt wax;

(m) eight (8) 48-inch ceiling fans;

(n) one (1) 12-inch gas food grill vent;

(o) eighteen (18) non-volatiles/non-particulate matter emitting injection molders; and

(p) one (1) steam autoclave wax melter.

3. Condition D.1.2 "Particulate Matter 10 Microns (PM-10)" has been changed to be as follows to change the allowable PM-10 emissions because of the addition of the insignificant combustion emission units:

D.1.2 Particulate Matter 10 Microns (PM-10)
Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through ~~D.9~~ **D.8** shall not exceed ~~22.3~~ **22.0** pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

4. Condition D.1.9 "Operational Parameters" has been changed to be as follows to revise the record keeping requirements for the six (6) electric induction melting furnaces:

D.1.9 Operational Parameters
The Permittee shall maintain daily records at the stationary source of the following values:

(a) Visible emission observations;

~~(b) Cleaning cycle: frequency;~~

~~(c) Fan speed/current and flow rate;~~

~~(d)~~**(b)** Checklist with dates and initials for each preventive action performed; and

~~(e)~~**(c)** Records of corrective actions.

5. The equipment listed in Section D.2 "FACILITY OPERATION CONDITIONS" has been changed to be as follows to add the two (2) new burn-out ovens:

~~six (6)~~ **eight (8)** natural gas fired wax burn-out ovens each rated at 0.55 million (MM) Btu per hour and identified as EU2, EU3, EU4, EU5, EU60**,** ~~and~~ EU61**, EU84 and EU85**, each exhausting through individual stacks respectively identified as S/V2, S/V3, S/V4, S/V5, S/V22**,** ~~and~~ S/V23**, S/V46 and S/V47**.

6. Condition D.2.1 "Particulate Matter" has been changed to be as follows to change the allowable Particulate Matter (PM) emissions because of the new burn-out ovens:

D.2.1 Particulate Matter
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facilities described above, shall not exceed ~~6.93~~ **8.40** pounds per hour. Satisfaction of this limit will ensure compliance with the limit for PM-10 pursuant to 326 IAC 2-8-4.

7. Condition D.2.2 "Particulate Matter 10 Microns (PM-10)" has been changed to be as follows to change the allowable PM-10 emissions because of the addition of the insignificant combustion emission units:

D.2.2 Particulate Matter 10 Microns (PM-10)
Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through ~~D.9~~ **D.8** shall not exceed ~~22.3~~ **22.0** pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

8. Condition D.2.3 “Natural Gas Fuel” has been changed to be as follows to add the two (2) new burn-out ovens:

D.2.3 Natural Gas Fuel

The ~~six (6)~~ **eight (8)** burn out ovens, rated at 0.55 million Btu per hour each, shall use only natural gas fuel.

9. Condition D.3.2 “Particulate Matter 10 Microns (PM-10)” has been changed to be as follows to change the allowable PM-10 emissions because of the addition of the insignificant combustion emission units:

D.3.2 Particulate Matter 10 Microns (PM-10)

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through ~~D.9~~ **D.8** shall not exceed ~~22.3~~ **22.0** pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

10. Condition D.3.3 “Particulate Matter” has been changed to be as follows to allow the source to test all control devices at one time:

D.3.3 Particulate Matter

~~During the period 48 to 54 months after issuance of this permit~~ **Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up of the new Particulate Matter (PM) control devices (D-1, D-2, and D-3)**, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. **In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.**

11. Condition D.3.6 “Operational Parameters” has been changed to be as follows to change the record keeping requirements for the one (1) sodium hydroxide solution metal parts cleaning unit:

D.3.6 Operational Parameters

~~The Permittee shall maintain daily records at the stationary source of the following values:~~

~~(a) Visible emission observations;~~

~~(b) Scrubber differential static pressure;~~

~~(c) Scrubber liquid flow rate;~~

~~(d) Cleaning cycle: frequency and differential pressure;~~

~~(e) Fan speed/current and flow rate;~~

~~(f) Checklist with dates and initials for each preventive action performed; and~~

~~(g) Records of corrective actions.~~

To document compliance with Condition D.3.4, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

12. The equipment listed in Section D.4 “FACILITY OPERATION CONDITIONS” has been changed to be as follows to change the type of Particulate Matter (PM) control device:

five (5) surface grinders identified as EU12 through EU16, nine (9) milling machines identified as EU17 through EU25, and two (2) Bridgeport CNC milling machines identified as EU26 and EU27, all controlled for particulate matter by ~~one (1) baghouse~~ **a Torit collection system,** identified as D-1, exhausting at one (1) stack identified as S/V9.

13. Condition D.4.2 “Particulate Matter 10 Microns (PM-10)” has been changed to be as follows to change the allowable PM-10 emissions because of the addition of the insignificant combustion emission units:

D.4.2 Particulate Matter 10 Microns (PM-10)

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through ~~D.9~~ **D.8** shall not exceed ~~22.3~~ **22.0** pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

14. Condition D.4.2a “Testing Requirements” has been added to the permit as follows to assign testing requirements for the new Particulate Matter (PM) control device:

D.4.2a Testing Requirements

Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up of the new Particulate Matter (PM) control devices (D-1, D-2, and D-3), the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

15. Condition D.4.3 “Pressure Readings” has been deleted and replaced with the following condition to change the monitoring requirements because of the new Particulate Matter (PM) control device:

~~D.4.3 Pressure Readings~~

~~The Permittee shall take readings of the total static pressure drop across the baghouse at least once a day when the facility is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 4.0 inches of water. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range.~~

~~The instruments used for determining the pressure and liquid flow rate shall comply with condition C.10 - Pressure Gauge and Wet Scrubber Liquid Flow Rate Meter Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.~~

D.4.3 Visible Emissions Notations

Daily visible emission notations of the Torit collection system stack exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

16. Condition D.4.4 “Broken Bag or Failure Detection” has been deleted from the permit as follows:

~~D.4.4 Broken Bag or Failure Detection~~

~~In the event that bag failure has been observed:~~

~~(a) The affected compartments will be shut down immediately until the units have been replaced.~~

~~(b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~

17. Condition D.4.6 “Preventive Inspections” has been changed to be as follows to change the record keeping requirements because of the new Particulate Matter (PM) control device:

D.4.6 Preventive Inspections

The following inspections shall be performed when the foundry process operations are operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Items/Conditions to be inspected:

(a) Integrity of the unit and duct work
(b) Duct work interior (free flow)
(c) Fan and motor operation

~~(d) Filter condition~~
~~(e) Pressure drop gauge~~

~~Inspections and log of pressure drop shall be performed daily.~~

~~Inspections of unit and related items shall be performed monthly.~~

An inspection shall be performed each month of the Torit collection system controlling the five (5) surface grinders, nine (9) milling machines, and two (2) Bridgeport CNC milling machines when venting to the atmosphere. Inspections are optional when venting indoors.

In the event that control device failure has been observed, the affected control device will be shut down immediately until the failed units have been repaired or replaced.

18. Condition D.4.7 "Operational Parameters" has been changed to be as follows to change the record keeping requirements because of the new Particulate Matter (PM) control device:

D.4.7 Operational Parameters

~~The Permittee shall maintain daily records at the stationary source of the following values:~~

~~(a) Inlet and outlet differential static pressure;~~

~~(b) Cleaning cycle: frequency and differential pressure;~~

~~(c) Fan speed/current and flow rate;~~

~~(d) Checklist with dates and initials for each preventive action performed; and~~

~~(e) Records of corrective actions.~~

To document compliance with Condition D.4.3, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

19. The equipment listed in Section D.5 "FACILITY OPERATION CONDITIONS" has been changed to be as follows:

one (1) 2-inch degater identified as EU28, one (1) degater machine identified as EU29, one (1) 2-head degater identified as EU30, and one (1) 4-inch degater machine identified as EU31, all controlled for particulate matter by ~~one (1) cyclone and one (1) baghouse~~ **an internal Micro air collection system,** identified as D-2, exhausting at one (1) stack identified as S/V10.

20. Condition D.5.2 "Particulate Matter 10 Microns (PM-10)" has been changed to be as follows to change the allowable PM-10 emissions because of the addition of the insignificant combustion emission units:

D.5.2 Particulate Matter 10 Microns (PM-10)

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through ~~D.9~~ **D.8** shall not exceed ~~22.3~~ **22.0** pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

21. Condition D.5.2a "Testing Requirements" has been added to the permits as follows to assign testing requirements for the new Particulate Matter (PM) control device:

D.5.2a Testing Requirements

Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up of the new Particulate Matter (PM) control devices (D-1, D-2, and D-3), the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

22. Condition D.5.3 "Pressure Readings" has been changed to be as follows:

D.5.3 Pressure Readings

The Permittee shall take readings of the total static pressure drop across the baghouse at least once a day when the facility is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of ~~2.0 and 4.0~~ **0.5 and 8.5** inches of water. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range.

The instruments used for determining the pressure and liquid flow rate shall comply with condition C.10 - Pressure Gauge and Wet Scrubber Liquid Flow Rate Meter Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

23. Condition D.5.6 "Preventive Inspections" has been changed to be as follows to change the record keeping requirements because of the new Particulate Matter (PM) control device:

D.5.6 Preventive Inspections

The following inspections shall be performed when the foundry process operations are operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Items/Conditions to be inspected:

(a) Integrity of the unit and duct work
(b) Duct work interior (free flow)
(c) Fan and motor operation
~~(d) Filter condition~~
~~(e) Pressure drop gauge~~

~~Inspections and log of pressure drop shall be performed daily.~~

~~Inspections of unit and related items shall be performed monthly.~~

An inspection shall be performed each month of the internal Micro air collection system controlling the one (1) 2-inch degater, one (1) degater machine, one (1) 2-head degater and one (1) 4-inch degater machine when venting to the atmosphere. Inspections are optional when venting indoors.

In the event that control device failure has been observed, the affected control device will be shut down immediately until the failed units have been repaired or replaced.

24. Condition D.5.7 "Operational Parameters" has been changed to be as follows to change the record keeping requirements because of the new Particulate Matter (PM) control device:

D.5.7 Operational Parameters
~~The Permittee shall maintain daily records at the stationary source of the following values:~~

~~(a) Inlet and outlet differential static pressure;~~

~~(b) Cleaning cycle: frequency and differential pressure;~~

~~(c) Fan speed/current and flow rate;~~

~~(d) Checklist with dates and initials for each preventive action performed; and~~

~~(e) Records of corrective actions.~~

To document compliance with Condition D.5.3, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

25. The equipment listed in Section D.6 "FACILITY OPERATION CONDITIONS" has been changed to be as follows to add a new Particulate Matter (PM) control device and to combine Section D.7 since both facilities vent to the same stack:

three (3) shot blasters identified as EU32, EU34 and EU41, four (4) friction saws identified as EU33, EU35, EU36 and EU37, and three (3) ceramic mold knock out machines identified as EU38, EU39, and EU40, all controlled for particulate matter by one (1) ~~cyclone and one (1) baghouse~~ **dust collector** identified as D-3, exhausting at one (1) stack identified as ~~S/V11~~ **S/V48**.

four (4) sandblasters identified as EU42 through EU45, and one (1) 2-head degater, identified as EU46, all controlled for particulate matter by one (1) ~~cyclone and one (1) baghouse~~ **dust collector** identified as ~~D-4~~ **D-3**, exhausting at one (1) stack identified as ~~S/V12~~ **S/V48**.

26. Condition D.6.1 "Particulate Matter" has been changed to be as follows to combine the allowable Particulate Matter (PM) emission limitation for both facilities:

D.6.1 Particulate Matter

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the particulate matter emissions from the facility described above, shall not exceed ~~2.06~~ **4.09** pounds per hour. Satisfaction of this limit will ensure compliance with the limit for PM-10 pursuant to 326 IAC 2-8-4.

27. Condition D.6.2 "Particulate Matter 10 Microns (PM-10)" has been changed to be as follows to change the allowable PM-10 emissions because of the addition of the insignificant combustion emission units:

D.6.2 Particulate Matter 10 Microns (PM-10)

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through ~~D.9~~ **D.8** shall not exceed ~~22.3~~ **22.0** pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

28. Condition D.6.2a "Testing Requirements" has been added to the permit as follows to add testing requirements for the new Particulate Matter (PM) control device:

D.6.2a Testing Requirements

Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up of the new Particulate Matter (PM) control devices (D-1, D-2, and D-3), the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

29. Condition D.6.3 "Pressure Readings" has been to be as follows to change the monitoring requirements because of the new Particulate Matter (PM) control device:

D.6.3 Pressure Readings

The Permittee shall take readings of the total static pressure drop across the baghouse at least once a day when the facility is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of ~~2.0 and 4.0~~ **0.05 and 10.0** inches of water. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range.

The instruments used for determining the pressure and liquid flow rate shall comply with condition C.10 - Pressure Gauge and Wet Scrubber Liquid Flow Rate Meter Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

30. Condition D.6.4 "Broken Bag or Failure Detection" has been deleted from the permit and replaced with the following condition to change the monitoring requirements for the new Particulate Matter (PM) control device:

~~D.6.4 Broken Bag or Failure Detection~~
~~In the event that bag failure has been observed:~~

~~(a) The affected compartments will be shut down immediately until the units have been replaced.~~

~~(b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~

D.6.4 Visible Emissions Notations

Daily visible emission notations of the one (1) dust collector stack exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

31. Condition D.6.6 "Preventive Inspections" has been changed to be as follows to change the record keeping requirements because of the new Particulate Matter (PM) control device:

D.6.6 Preventive Inspections

The following inspections shall be performed when the foundry process operations are operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13

Items/Conditions to be inspected:

(a) Integrity of the unit and duct work
(b) Duct work interior (free flow)
(c) Fan and motor operation
~~(d) Filter condition~~
~~(e) Pressure drop gauge~~

~~Inspections and log of pressure drop shall be performed daily.~~

~~Inspections of unit and related items shall be performed monthly.~~

An inspection shall be performed each month of the one (1) dust collector controlling the three (3) shot blasters and three (3) ceramic mold knock out machines when venting to the atmosphere. Inspections are optional when venting indoors.

In the event that control device failure has been observed, the affected control device will be shut down immediately until the failed units have been repaired or replaced.

32. Condition D.6.7 "Operational Parameters" has been changed to be as follows to change the record keeping requirements because of the new Particulate Matter (PM) control device:

D.6.7 Operational Parameters
~~The Permittee shall maintain daily records at the stationary source of the following values:~~

~~(a) Inlet and outlet differential static pressure;~~

~~(b) Cleaning cycle: frequency and differential pressure;~~

~~(c) Fan speed/current and flow rate;~~

~~(d) Checklist with dates and initials for each preventive action performed; and~~

~~(e) Records of corrective actions.~~

To document compliance with Condition D.6.3, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

33. The equipment listed in Section D.8 (now renumbered Section D.7) "FACILITY OPERATION CONDITIONS" has been changed to be as follows:

(1)	two (2) silica sand rain fall units identified as EU49 and EU50, ~~both~~ **each** controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-1, exhausting at ~~one (1)~~ **two (2)** stack**s** identified as S/V15 **and S/V16**; and
(2)	three (3) fluidized sand beds identified as EU51, EU53, and EU54, and one (1) sand mix tank identified as EU52, with EU51 controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-2, exhausting through one (1) stack identified as S/V16, and EU52, EU53, and EU54 controlled for particulate matter by one (1) cartridge type dust collector identified as MC3000-3, exhausting through one (1) stack identified as S/V17.

34. Condition D.8.2 (now renumbered Condition D.7.2) "Particulate Matter 10 Microns (PM-10)" has been changed to be as follows to change the allowable PM-10 emissions because of the addition of the insignificant combustion emission units:

D.~~8~~**7**.2 Particulate Matter 10 Microns (PM-10)

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through ~~D.9~~ **D.8** shall not exceed ~~22.3~~ **22.0** pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

35. Condition D.8.3 (now renumbered Condition D.8.3) "Pressure Readings" has been deleted from the permit and replaced with the following condition to change the monitoring requirements because of the new Particulate Matter (PM) control device:

~~D.8.3 Pressure Readings~~

~~The Permittee shall take readings of the total static pressure drop across the baghouses at least once a day when the facilities are in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 5.0 inches of water. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range.~~

~~The instruments used for determining the pressure and liquid flow rate shall comply with condition C.10 - Pressure Gauge and Wet Scrubber Liquid Flow Rate Meter Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.~~

D.7.3 Visible Emissions Notations

Daily visible emission notations of the dust collectors stack exhausts, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

36. Condition D.8.5 (now renumbered Condition D.7.5) "Preventive Inspections" has been changed to be as follows because the dust collectors have been equipped with new monitoring devices:

D.~~8~~**7**.5 Preventive Inspections

The following inspections shall be performed when the silica sand rainfall units are operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Items/Conditions to be inspected:

(a) Integrity of the unit and duct work
(b) Duct work interior (free flow)
(c) Fan and motor operation
~~(d) Filter condition~~

Inspections of unit and related items shall be performed monthly.

37. Condition D.8.6 (now renumbered Condition D.7.6) "Operational Parameters" has been changed to be as follows because the dust collectors have been equipped with new monitoring devices:

D.~~8~~**7**.6 Operational Parameters

~~The Permittee shall maintain daily records at the stationary source of the following values:~~

~~(a) Inlet and outlet differential static pressure;~~

~~(b) Cleaning cycle: frequency and differential pressure;~~

~~(c) Fan speed/current and flow rate;~~

~~(d) Checklist with dates and initials for each preventive action performed; and~~

~~(e) Records of corrective actions.~~

To document compliance with Condition D.7.3, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

38. Condition D.9.2 (now renumbered Condition D.8.2) "Particulate Matter 10 Microns (PM-10)" has been changed to be as follows to change the allowable PM-10 emissions because of the addition of insignificant combustion emission units:

D.~~9~~**8**.2 Particulate Matter 10 Microns (PM-10)

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the source, which includes facilities described herein at D.1 through ~~D.9~~ **D.8** shall not exceed ~~22.3~~ **22.0** pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

39. Condition D.9.3 (now renumbered Condition D.8.3) "Pressure Readings" has been changed to be as follows to change the monitoring requirements for the Particulate Matter (PM) control device:

D.~~9~~**8**.3 Pressure Readings

The Permittee shall take readings of the total static pressure drop across the baghouse at least once a day when the facility is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of ~~2.0 and 4.0~~ **1.0 and 6.0** inches of water. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range.

The instruments used for determining the pressure and liquid flow rate shall comply with condition C.10 - Pressure Gauge and Wet Scrubber Liquid Flow Rate Meter Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

40. Condition D.9.6 (now renumbered Condition D.8.6) "Preventive Inspections" has been changed to be as follows because the dust collectors have been equipped with new monitoring devices:

D.~~9~~**8**.6 Preventive Inspections

The following inspections shall be performed when the OKK CNC milling machine is operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Items/Conditions to be inspected:

(a) Integrity of the unit and duct work
(b) Duct work interior (free flow)
(c) Fan and motor operation
~~(d) Filter condition~~

Inspections of unit and related items shall be performed monthly.

41. Condition D.9.7 (now renumbered Condition D.8.7) "Operational Parameters" has been changed to be as follows because the dust collectors have been equipped with new monitoring devices:

D.~~9~~**8**.7 Operational Parameters

~~The Permittee shall maintain daily records at the stationary source of the following values:~~

~~(a) Inlet and outlet differential static pressure;~~

~~(b) Cleaning cycle: frequency and differential pressure;~~

~~(c) Fan speed/current and flow rate;~~

~~(d) Checklist with dates and initials for each preventive action performed; and~~

~~(e) Records of corrective actions.~~

To document compliance with Condition D.8.3, the Permittee shall maintain the following:

(a) Documentation of all response steps implemented, per event.

(b) Operation and preventive maintenance logs shall be maintained.

(c) Quality Assurance/Quality Control (QA/QC) procedures.

(d) Operator standard operating procedures (SOP).

(e) Manufacturer's specifications or its equivalent.

(f) Equipment "troubleshooting" contingency plan.

(g) Documentation of the dates vents are redirected.

Indiana Department of Environmental Management
Office of Air Management

Addendum to the
Technical Support Document for Significant Modification to the
Federally Enforceable State Operating Permit (FESOP)
and Enhanced New Source Review (ENSR)

Source Name:	Aero Metals, Inc.
Source Location:	402 Darlington Street, LaPorte, Indiana 46350
County:	LaPorte
SIC Code:	3324
Significant Modification No.:	SMF091-8786-00074
Operation Permit No.:	F091-5507-00074
Permit Reviewer:	Catherine Moore

On July 21, 1998, the Office of Air Management (OAM) had a notice published in the LaPorte Herald-Angus, LaPorte, Indiana, stating that Aero Metals, Inc. had applied for a Significant Modification to the Federally Enforceable State Operating Permit (FESOP) to operate an investment casting foundry. The notice also stated that OAM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On July 27, 1998, Aero Metals, Inc. submitted comments on the proposed FESOP. The summary of the comments is as follows:

Comment 1:

Condition D.3.3
This sodium hydroxide scrubber unit is the same as originally permitted. We request that the 180 dat testing time be removed since this unit has already been stack tested and the next testing date is scheduled for the year 2002. No changes have been made to this unit so we ask that the testing be as originally drafted in our permit.

Response to Comment 1:

Condition D.3.3 "Particulate Matter" has been changed to be as follows to change the condition back to the original permit condition:

D.3.3 Particulate Matter

~~Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up of the new Particulate Matter (PM) control devices (D-1, D-2, and D-3)~~, **During the period 48 to 54 months after issuance of this Federally Enforceable State Operating Permit,** the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

Comment 2:

Section D.8
The control unit SV-19 is being changed to a more efficient filter system to be named SV-049. We request that this be changed into the FESOP so that the testing time of within 180 days will also apply to this unit. The specification of this unit are as follows: 99.99% efficiency, paper filter, 720 sq.ft., filter area, 2.5 to 1 air to cloth ratio, 3.5 to 5 pressure drop, automatic cleaning.

Response to Comment 2:

1. Condition A.2(j) "Emission Units and Pollution Control Summary" has been changed to be as follows to change the stack ID for the new baghouse:

   (j) one (1) OKK CNC milling machine identified as EU56, controlled for particulate matter by **one (1) baghouse**, exhausting at one (1) stack identified as ~~S/V19~~ **S/V-049**.

2. The equipment listed in Section D.8 "FACILITY OPERATION CONDITIONS" has been changed to be as follows to change the stack ID for the new baghouse:

one (1) OKK CNC milling machine identified as EU56, controlled for particulate matter by **one (1) baghouse**, exhausting at one (1) stack identified as ~~S/V19~~ **S/V-049**.

3. Condition D.8.2a "Testing Requirements" has been added to the permit to require testing of the new baghouse:

Compliance Determination Requirements

D.8.2a Testing Requirements

Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up of the new Particulate Matter (PM) control device (S/V-049), the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other approved methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

4. Condition D.8.3 "Pressure Readings" has been deleted and replaced with the following condition to change the monitoring requirements because of the new Particulate Matter (PM) control device:

~~D.8.3 Pressure Readings~~

~~The Permittee shall take readings of the total static pressure drop across the baghouse at least once a day when the facility is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 1.0 and 6.0 inches of water. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range.~~

~~The instruments used for determining the pressure and liquid flow rate shall comply with condition C.10 - Pressure Gauge and Wet Scrubber Liquid Flow Rate Meter Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.~~

D.8.3 Visible Emissions Notations

Daily visible emission notations of the baghouse stack exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.